REMARKS

In this non-final Official Action, the Examiners have made final Applicants' provisional election with traverse of claims 11-15 constituting Group V; and objected to certain stylistic informalities existing within the Specification, the Drawing and pending claims 11-15. In addition, the Examiners have rejected original claims 11-15 respectively under 35 U.S.C. 112, first paragraph, as allegedly not being enabled by the disclosure of the Specification text. Furthermore, the Examiners have rejected pending claims 11-15 respectively under 35 U.S.C. 112, second paragraph, as allegedly being indefinite in language. Finally, the Examiners have provisionally rejected pending claims 11-15 under the judicially created doctrine of "obvious-type" double patenting.

In response, applicants have amended the Specification; amended the Drawing; cancelled claims 1-10 respectively, without prejudice; amended pending claims 11-15 respectively; and enclose herewith a Terminal Disclaimer signed by the attorney of record. By these Specification and Drawing amendments, the claim cancellations and present claim amendments, the documentary enclosure and the discussion presented hereinafter, applicants believe they have overcome and obviated each basis for objection and rejection stated by the Examiners in the instant Official Action.

I. Preliminary Matters

1. The Examiners of record for evaluating applicants' invention are newly appointed and presently include Chih-Min Kam, Christopher Low & Karen C. Carlson. Applicants and their undersigned attorney acknowledge the authority of the newly appointed Examiners and request a substantive evaluation on the merits which is objective and in accordance with the precedent case law decisions and established legal standards.

2. The newly appointed Examiners of record have made final applicants provisional election with traverse to prosecute Group V and claims 11-15 in this application. Applicants and their undersigned attorney are disappointed that the newly appointed Examiners have chosen to exercise their discretion; and believe that such final restriction to prosecuting claims 11-15 alone is an error of discretion as well as an unfortunate failure to consider the essential components and integrated nature of the subject matter which is applicants' invention as a whole.

3. Applicants accept and acknowledge the formal withdrawal of the previous rejections of the claims made under 35 U.S.C. 112, first and

second paragraphs and under 35 U.S.C. 102(a)/103(a), as stated at page 3, middle of the instant Official Action.

4. Applicants have noted the newly appointed Examiners' repeated objection to the stylistic use of brackets in conjunction with sequence identification numbers, as previously presented in the Specification, the Drawing and within pending claims 11-15. Via the present amendments, all such stylistic informalities have been removed and eliminated, pursuant to the requirements of 37 C.F.R. 1.121, paragraphs (b) through (d) respectively.

It will be recognized also that all sequence identification numbers are now encompassed by and contained within parentheses, instead of brackets; and, as a consequence of these amendments, the basis for all these objections have been eliminated from the individual parts of the present application. Accordingly, applicants request that the Examiners reconsider their stated position and withdraw these grounds of objection against the Specification, the Drawing, and the presently pending claims.

Applicants will now address each of the different substantive bases for rejection stated by the Examiners in the instant Official Action with regard both to its legal requirements and the relevant factual circumstances. Yet, since so much of the newly appointed Examiners'

stated views and positions are dependent upon having a focused and clear understanding of what applicants' invention truly is - as defined by the language of the now pending claims, applicants deem it both useful and appropriate to review summarily here the subject matter as a whole which is applicants' claimed invention.

II. Applicants' Claimed Invention

Applicants' invention is claimed specifically as a "PR-39 derived oligopeptide family". This term, "PR-39 derived oligopeptide family", is defined with particularity at page 26, lines 2-4 of the Specification; is compared to the corresponding term "PR-39 peptides group" at page 25, line 38 through page 26, line 2 of the Specification; and is contrasted to the umbrella term and category title "PR-39 oligopeptide collective" at page 26, lines 4-7 of the Specification. Thus, each of these different terms and respective titles is explicitly identified, unambiguously defined, and clearly distinguished - individually and with respect to each other - by the disclosure of the Specification itself.

Furthermore, it will be recognized that the Specification text not only describes in detail the commonly shared characteristics and properties of the PR-39 oligopeptide family at page 24, lines 1-22; but also sets forth multiple illustrative examples and preferred embodiments of the membership which constitutes the PR-39 derived oligopeptide

family as such at page 25, lines 1-32. Attention is also directed to Experiment 6, described at page 45 of the Specification text, which provides probative evidence and empirical data for the activity and function of PR-11, the 11 residue length embodiment, in stimulating angiogenesis.

Thus, the wording of presently amended independent claims 11 and 15 merely restate the commonly shared characteristics and properties of the 15, 11, and 8 amino acid residue length structures described in detail by the Specification text; and delineate a circumscribed membership which is size-limited, is functionally specific, and is structurally related as a family of unique oligopeptides analogous to the native PR-39 molecule

In addition, the commonly shared characteristics and properties of the PR-39 derived oligopeptide family described in detail at page 24, lines 12-22 of the Specification text are overtly restated and individually set forth as the requisite elements and specific limitations recited by amended independent claims 11 and 15 respectively. Thus, amended claim 11 (or claim 15) requires that each PR-39 derived oligopeptide family member present not less than six separate and individual traits and attributes. These are:

(1) a peptide less than 26 (or 20) amino acid residues in length;

(2) a peptide whose N-terminal amino acid residue sequence begins with Arg-Arg-Arg;

(3) a peptide which is an analog of the amino acid sequence of native PR-39 peptide;

(4) a peptide which is pharmacologically active for altering the proteolytic degradation activity of proteasomes in-situ;

(5) a peptide able to interact in-situ with at least the α7 subunit of such proteasomes as are present within the cytoplasm of the cell; and

(6) a peptide able selectively to alter the proteolytic degradation activity of said proteasomes having an interacting α7 subunit such that the proteolytic degradation mediated by said proteasomes against at least one specific peptide becomes inhibited while the proteolytic degradation mediated by said proteasomes against other peptides remains unaltered.

III. The Rejection Under 35 U.S.C. 112, 1st Paragraph, Enablement

The Examiners have rejected claims 11-15 under 35 U.S.C. 112, first paragraph, as allegedly failing to provide information sufficient to enable one skilled in the art to make and practice applicants' invention as claimed.

The Examiners have presented their views and position at pages 6-7 in the instant Official Action. The essence of their stated rationale is as follows:

"There is no disclosure of any particular structure to function/activity relationship in the members of PR-39 derived oligopeptide family....

Without guidance for structure to function/activity, one skilled in the art would not know which portions of the PR-39 are essential for function/activity to produce a functional polypeptide."

In response to the Examiners' stated rationale, applicants and their undersigned attorney respectfully submit:

First, the Examiners have employed legal standards which are subjective and do not conform to the correct and proper objective legal standards regarding adequacy of disclosure for enablement as prescribed by statute and the governing caselaw decisions;

Second, the Examiners have failed to appreciate properly the totality of factual content disclosed by the Specification text and have failed to give proper credence to the quality and quantity of the detailed information presented by the written disclosure; and

Third, the Examiners have reviewed the pending claims and the Specification text from an erroneous perspective and from a vantage point which fails to recognize or take into account the ordinary skills and commonplace knowledge currently available and conventionally employed in the relevant field.

Each of these major failures and errors will be demonstrated and explained in detail.

The legal errors of the Examiners:

Applicants respectfully submit that the Examiners have inadvertently and unfortunately departed from the proper legal standards and requirements of enablement; and presented applicants instead with a subjective view and improvised position which is flawed, erroneous and legally unsupportable. Applicants therefore offer the Examiners a true and correct statement of the objective legal standards by which sufficiency of enablement is to be determined.

1. Nothing more than objective enablement is required as a matter of law; and it is irrelevant whether this quantum of information is provided through a broadly written description and disclosure, or by illustrative examples, or by working experiments with observed empirical data [In re Wright, 27 U.S.P.Q. 2d 1510 (1993)]. Thus, there is no meaningful difference when determining the adequacy of description and information for enablement purposes whether a broadly written description in meaningful detail is provided by a Specification text; or if a series of illustrative hypothetical examples is provided in a variety of circumstances; or if a series of actual experiments with resulting empirical data and conclusions supported by the empirical data is present in any degree, quality or form. Any presentation of such information in any of these formats is legally and factually sufficient to satisfy the enablement requirement.

2. If and when the Examiners reject one or more claims because of the enablement requirement of Section 112, the Examiners bear the initial burden of setting forth a *prima facie* case and a reasonable explanation as to why they believe that the scope of protection defined by that claim is not adequately enabled by the description of the invention provided by the totality of information disclosed within the Specification text of the application. The Examiners are thus legally required and obligated to present sufficient fact, reasoning and evidence about the objective truth of the information presented within the Specification text; to explain why the Examiners doubt the truth or accuracy of any statement in the disclosure of the Specification; and to back up such assertions with acceptable evidence or reasoning which is inconsistent with the information or statements disclosed by the Specification text.

It is thus incumbent on the Examiners to establish first a *prima facie* case of non-enablement. A mere statement, or opinion, or point of view by the Examiners that they personally believe that the disclosure is not enabling of itself or is insufficient to support one or more specific claims is not legally adequate or proper to meet the burden of presenting and supporting a *prima facie* case of non-enablement [In re Marzocchi, 169 U.S.P.Q. 369 (CCPA 1971); In re Sichert, 196 U.S.P. Q. 209 (CCPA 1977)].

3. It has been emphasized repeatedly by major caselaw decisions that the enablement requirement of Section 112, 1st paragraph does not require a specific example of everything possible within the scope of a broadly defined claim [In re Anderson, 176 U.S.P.Q. 331 (CCPA 1973)]; and that not even one single specific illustrative working example need be present within the disclosure of a specification text in order to meet and satisfy the enablement requirement of Section 112 [In re Stephens, 188 U.S.P.Q. 659 (CCPA 1976)].

Moreover, the fact that a Specification text may be devoid of even one working or illustrative example is itself without legal significance; it is well established that illustrative examples or empirical data and the like are not legally necessary in order to have an enabling disclosure [In re Borkowski, 164 U.S.P.Q. 642 (CCPA 1970)]. Accordingly, the presence or absence of even a single illustrative or working example does not of itself provide any legal basis or support to explain why a Specification text is not enabling or to explain why the scope of the enablement is not commensurate with the scope of protection sought by the pending claims.

4. As a matter of long-established legal principle, there is no requirement under 35 U.S.C. 112, 1st paragraph that an inventor correctly set forth, or even know, **how or why** the claimed invention works or

functions [Newman v. Quigg, 11 U.S.P.Q.2d 1340 (Fed. Cir. 1989)]. Moreover, it is axiomatic that an inventor need not even comprehend the scientific principles upon which the practical effectiveness of his invention rests [Fromson v. Advance Offset Plate, Inc., 219 U.S.P.Q.2d 1137 (Fed. Cir. 1983)]. Accordingly, therefore, no legal basis or duty of any kind exists for the written disclosure of a Specification to provide any explanation, or any understanding, or even any theory of why the claimed invention works or how the claimed invention functions.

Furthermore, the presence of experimental details or other descriptive statements within a disclosure that a particular physiological phenomenon was observed and experimentally evaluated are not deemed to be "intrinsically suspect" simply because the underlying biomolecular basis for the empirical observation cannot be predicted or explained [In re Cortright, 49 U.S. P.Q.2d 1464 (Fed. Cir. 1999)]. Thus, the Examiners cannot overtly state or even suggest that the enablement requirement legally demands that applicants prove the mechanism of action involved or the nature of a function/structure relationship to account for the observed physiological activity and the consequential result caused by a defined composition of matter.

5. The enablement requirement of Section 112, 1st paragraph, also does not require that the disclosure of the Specification convince any

person (including the Examiners) that the assertions, information, and knowledge contained therein are proven correct to the point of absolute certainty [In re Robins, 429 F.2d 452 (CCPA 1970)]. There is thus no legal requirement in law that the Examiners become completely persuaded; or become a committed follower; or be a true supporter of the scientific model, theory or premise upon which an invention is based or of any mechanism of action upon which the invention relies.

Rather, the legal obligation and burden upon the Examiners is a quite different one entirely: the Examiners are required to evaluate the totality of the disclosure within the Specification text when evaluating whether the disclosure is adequate for purposes of enablement; and the purpose of the Examiners' evaluation is to determine objectively whether there is sufficient information, detail and knowledge disclosed within that text which would allow a person of ordinary skill in the pertinent art to make and use the invention as claimed.

6. It has long been recognized that the Examiners are neither permitted to act as nor intended to be either a scientific board of inquiry or an editorial review committee. Also, the purview of the Examiners' objective assessment is not intended or expected to delve into the details or minutiae which further experimentation or other additional empirical data might reveal or supply in terms of a greater appreciation of what the

invention is and/or what might be the most optimal conditions of how the invention is to be practiced [In re Marzocchi, 169 U.S.P.Q. 367 (CCPA 1971); In re Brana, 34 U.S.P.Q.2d 1437 (Fed. Cir. 1995)].

Moreover, where the Examiners have expressed subjective doubt and personal opinion regarding the nature of the invention, or the range of specific embodiments, or the number of illustrative examples embodying the invention - rather than objectively address and evaluate whether the totality of the Specification text provides adequate information as to how to make and use the invention as claimed – such a rejection is then without factual or legal support and is completely improper [In re Armbruster, 185, U.S.P.Q. 152 (CCPA 1975)].

7. Enablement is also legally satisfied and fulfilled when one possessed of the knowledge and information provided by the Specification text could use the invention as claimed without undue experimentation [In re Eynde, 178 U.S.P.Q. 470 (CCPA 1973)]. The objective determination of what constitutes "undue experimentation" in any given instance requires the application of the standard of reasonableness, having due regard for the nature of the invention as claimed and the state of the pertinent art. This test is not merely quantitative since a considerable amount of experimentation is legally permissible. Thus, if such experimentation is merely routine or if the Specification text provides a

reasonable amount of guidance with respect to the direction in which the experimentation should proceed, then such experimentation is not "undue". The key and essential word, therefore, is always "undue" and not "experimentation" [In re Angstadt, 190 U.S.P.Q. 214 (CPPA 1976); Atlas Powder Company vs. E.I. DuPont DeNemours & Co., 224 U.S.P.Q. 409 (Fed. Cir. 1984); In re Wands, 8 U.S.P.Q. 2d 1400 (Fed. Cir. 1988)].

8. In addition, the mere possibility that a recited claim might include a large number of embodiments and use instances does not of itself prevent or legally deny the allowance of claims having a broad scope. Moreover, it is not incumbent on an applicant who has made a broad invention either to demonstrate with evidence or to prove with data (i) empirical support for the entire descriptive range of possibilities envisioned; or (ii) the degree of embodiment variation or the diversity of capabilities in every embodiment and use instance of the invention which may fall within the broad scope of the claims. The function of a recited claim is to point out what the invention is and to define the scope of the protection; it is not, however, intended to exclude conditions or instances which are possibly of no use in practicing the invention [In re Sarett, 327 F. 2d 1005 (CCPA 1964)].

Thus, when the degree of experimentation involved is commonplace, such as the personal selection of commonly available choices known in the

field or which become available via a study of other routine parameters and variations that anyone ordinarily skilled in the pertinent art might expect, none of these experiments are "undue"; and the Specification disclosure, as written, is legally adequate and factually sufficient to satisfy the enablement requirement [In re Geerdes, 180 U.S.P.Q. 789 (CCPA 1974); In re Morehouse, 545 F.2d 162 (CCPA 1976)].

The factual errors of the Examiners:

As applicants have shown and documented previously herein, the Specification text not only describes in detail the commonly shared characteristics and properties of the PR-39 oligopeptide family at page 24, lines 1-22; but also sets forth at page 25, lines 1-32 multiple illustrative examples and preferred embodiments of the membership which constitutes the PR-39 derived oligopeptide family as such. In addition, the commonly shared characteristics and properties of the PR-39 derived oligopeptide family described in detail at page 24, lines 12-22 of the Specification text are overtly restated and individually set forth; and this antecedent description corresponds and directly correlates with the requisite elements and specific limitations recited by amended independent claims 11 and 15 respectively.

Equally important, in opposition and contradiction to the Examiners' stated view, these specified traits and attributes for the membership

constituting the PR-39 derived oligopeptide family as a whole also have been experimentally illustrated and empirically validated. Such evidence is disclosed by Experiment 6 and the use of PR-11, as described at page 45, lines 1-24 of the Specification. This working example and representative embodiment amply evidences and empirically demonstrates the requisite structure, function, and pharmacological activity for the entire PR-39 derived oligopeptide family membership as defined by amended independent claims 11 and 15 respectively.

It is important also for the Examiners to recognize and acknowledge that the other experiments and empirical results described within the Specification text at pages 39-44 constitute probative evidence of the traits and attributes of the PR-39 derived oligopeptide family as a whole; and such evidence clearly exemplifies the utility and capabilities for the more limited membership of the PR-39 derived oligopeptide family defined by amended independent claims 11 and 15 respectively.

Applicants and their undersigned attorney therefore respectfully submit and affirm that an objective review and evaluation of the range of antecedent description and the variety of illustrative details disclosed by the Specification text reveals all the necessary knowledge and information concerning the structure, attributes and traits of the oligopeptides defined by amended independent claims 11 and 15 such that any ordinarily skilled

practitioner could identify, prepare and use any chosen member of the PR-39 derived oligopeptide family as a whole.

The prejudicial error in the Examiners' evaluation:

1. Applicants find that the Examiners' views and positions as stated within the instant Official Action, particularly at page 7, lines 2-11, merely represent the Examiners' subjective desire for recitations of unknown and non-essential technical details and information; and, in addition, constitute a request for a kind of incidental and supplemental information which can be experimentally obtained at will and without major difficulty by persons ordinary skilled in this art -- after having read the broad and varied description provide by the Specification text.

Applicants also submit and affirm that no legal justification or support exists in law for the Examiners' stated demand that a structure to function/activity relationship be disclosed; and maintain that an enabling disclosure – as revealed by the controlling caselaw decisions - does not demand or legally require any description or inclusion of a structure to function/activity relationship within the Specification text in order to meet and satisfy the 1st paragraph of Section 112.

Moreover, by making such a demand and posing the demand as a legal requirement which must ostensibly be satisfied for enablement purposes, the Examiners have committed gross and prejudicial legal error.

Applicants affirm that the Examiners are demonstrably without legal support, or proper cause, or lawful justification for their stated view and position.

2. It will be recognized and acknowledged that all the essential aspects of the invention defined by amended claims 11 and 15 respectively are disclosed in written descriptive detail; are structurally and functionally characterized by experiment and empirical data; and are revealed in multiple illustrations and embodiments by the Specification text. In addition, applicants have clearly shown that the Specification text provides specific parameters of, guidance for and valuable insights to choosing, preparing and making any chosen embodiment of the PR-39 derived oligopeptide family – whenever the ordinarily skilled person in this technical field wishes to do so. Given this totality of information, guidance and insight now existing within the Specification text, anyone ordinarily skilled in this art would have no need or use for a redundant recitation directed to a structure to function/activity relationship in order to make and use applicants' defined invention for its intended purpose.

Furthermore, applicants respectfully submit that the manner of making and using the present invention is revealed in full and explicated in depth by the range and variety of the experiments and empirical data disclosed by the Specification text. Thus, the practitioner ordinarily skilled

in this art could easily prepare and utilize without major difficulty many different embodiments of the entire PR-39 derived oligopeptide family as a whole from the limited membership defined by amended independent claims 11 and 15 respectively.

3. Applicants also submit and maintain that the Specification text provides an abundance of detailed description and informative information as to how to make and use analogues of PR-39 shorter than 26 amino acid residues in length - which is the subject matter as a whole defined by the presently pending claims. So long as the each member of the PR-39 derived oligopeptide family is structurally an analog of native PR-39, is pharmacologically active, and can interact with proteasomes in the specified manner to achieve the desired result, there is no practical need for nor any informational value in a theoretical function/activity to structure relationship either in the disclosure or within the recited definition of applicants' invention.

In summary, applicants respectfully submit and maintain that the Examiners have failed to adhere to or comply with the above-identified proper legal standards when conducting their assessment and evaluation of the claims pending in the present application. Instead, the Examiners have wrongly demanded more details; improperly insisted upon more

working examples; and peremptorily required more information – all of which would constitute merely ordinary and routine experiments to yield merely a better appreciation of biomolecular mechanisms or function/structure parameters; and provide, at most, an empirical showing of non-essential variables for the relevant art. None of the Examiners' demands for such information, even if acquiesced to, would be of unusual or additional benefit to the practitioner in this field, given the quantity and quality of information and knowledge disclosed by the Specification text presently to the ordinarily skilled practitioner in the art.

For these reasons, applicants regretfully submit that the Examiners have made multiple factual and legal errors regarding the enablement requirement for the invention as presently claimed. Accordingly, on the basis of all the foregoing, applicants request that the Examiners reconsider their position and withdraw this ground of rejection against the presently pending claims.

IV. The Rejection Under 35 U.S.C. 112, 2nd Paragraph

The Examiners have rejected the original claims under 35 U.S.C. 112, 2nd paragraph as being vague and indefinite in language. The Examiners' position is based on a range of wording problems in different parts of the claims. In response, applicants direct the Examiners'

attention to the substantive changes in the wording of independent claims 11 and 15 as presently amended.

However, several specific inquiries made by the Examiners require further attention:

(i) PR-39 is the correct, proper and sole term and title known in the scientific literature for the native 39 amino acid residue peptide. The printed publications of record submitted previously by applicants evidence and prove this point. In so far as applicants are aware, no other nomenclature has ever been employed to identify this peptide.

(ii) Much of the Examiners' stated views regarding what words and phrases render a claim indefinite are notably individual and very subjective. This is shown by the multiple instances listed at page 7, bottom which are allegedly said to be indefinite, but in truth are quite specific and exact in their meanings. Nevertheless, applicants have attempted to accommodate the Examiners' point of view as much as possible by the present amendments to the claims.

(iii) Applicants' invention is claimed specifically as a "PR-39 derived oligopeptide family". This term, "PR-39 derived oligopeptide family", is defined with particularity at page 26, lines 2-4 of the Specification; is compared to the corresponding term "PR-39 peptides group" at page 25, line 38 through page 26, line 2 of the Specification; and is contrasted to

the umbrella term and category title "PR-39 oligopeptide collective" at page 26, lines 4-7 of the Specification.

(iv) The Examiners remarks as stated at page 8, top are inconsistent with the legal requirements and demands set forth by the 2nd paragraph of Section 112. To demonstrate this inconsistency, the Examiners' attention is directed to the relevant point of law, which is as follows.

As regards the language of the pending claims as a whole, the essential inquiry is to determine whether the language of the pending claims do, in fact, set out and circumscribe a particular area or subject matter with a reasonable degree of precision and particularity. It is here where the meaning of the words and language employed to define the invention is analyzed; not in a vacuum, but always with regard to the teachings of the prior art and within the particular description, use or context disclosed by the Specification as it is understood and interpreted by one possessing ordinary skill in the pertinent art [In re Angstadt, 190 U.S.P.Q. 214 (C.C.P.A. 1976)].

Finally, applicants note that each of the terms used in pending claims respectively is well understood; is not subject to numerous definitions and interpretations; and that there is no discrepancy, no confusion, and no ambiguity with regard to the antecedent descriptive basis and support provided by the Specification text. Rather, the language

of the presently pending claims as a whole read on subject matter which is completely disclosed and enabled by the Specification text. Moreover, each recited element of the pending claims is explicit and clearly stated; and employs wording which sets forth and circumscribes the particular subject matter area with the requisite reasonable degree of precision and particularity [In re Moore, 169 U.S.P.Q. 236 (C.C.P.A. 1971)].

For these reasons, applicants respectfully submit that each and every claim now pending satisfies the requirements of precision, clarity, and particularity required by the second paragraph of 35 U.S.C. 112. Accordingly, applicants respectfully request that the Examiners reconsider their stated position and withdraw this ground of rejection against the presently pending claims.

V. The Obvious-Type Double Patenting Rejection

The Examiners have provisionally rejected claims 11-15 under the judicially created doctrine of "obvious-type" double patenting over claims 11-14 of co-pending U.S. Application Serial No. 09/426,011. However, as the Examiners' have themselves noted at page 5, top of the instant

Official Action, a timely filed Terminal Disclaimer in compliance with 37 C.F.R. 1.321(c) is legally sufficient and may be used to overcome a provisional rejection based on this non-statutory double patenting ground.

Applicants have chosen to respond to this ground of rejection by the filing of such a Terminal Disclaimer. Enclosed please find a properly prepared Terminal Disclaimer document (and the requisite fee payment) which sets forth all the needed requirements and binding commitments of 37 C.F.R. 1.321; and is signed by applicants' attorney of record in accordance with 37 C.F.R. 3.73(b).

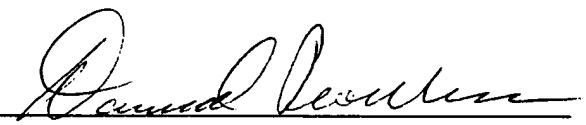
Accordingly, the filing of this Terminal Disclaimer is a complete and appropriate response which overcomes the stated basis for rejection. For this reason, applicants request that the Examiners reconsider their stated position and withdraw this ground of rejection against the presently pending claims.

Applicants have addressed each basis of rejection stated in the instant Official Action forthrightly and objectively. In applicants' view, each issue or controversy has been evaluated, acted upon and resolved completely. For these reasons, applicants respectfully submit and affirm that amended claims 11-15 now pending are therefore now allowable.

In view of the above discussion and detailed review, applicants believe that this case is now in condition for allowance and reconsideration is respectfully requested. The Examiners are invited to call applicants' undersigned attorney should they feel that such a telephone call would further the prosecution of the present application.

Respectfully submitted,

MICHAEL SIMONS
YOUHE GAO

Aug. 23, 2002 By: 

David Prashker
Registration Number 29, 693
Attorney for applicants
P.O. Box 5387
Magnolia, Massachusetts 01930
Tel: (978) 525-3794